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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/981,791 | 10/19/2001 | Shinya Kondoh | 1165-763-1 | 6744 |

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EXAMINER

MENGISTU, AMARE

ART UNIT PAPER NUMBER

2673

DATE MAILED: 02/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/981,791

Applicant(s)

Shinya Kondoh

Examiner
AMARE MENGISTU

Art Unit
2673



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-24 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☒ The proposed drawing correction filed on Oct 19, 2001 is: a) ☒ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/423,465.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). #1
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "a frequency of 1Hz to 100Hz and a voltage in the range of +10V to +50V or -10V to -50V" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim Rejections - 35 U.S.C. § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims s 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Suzuki (6,133,896)** in view of **Imoto et al (6,259,492)**.

As to claims 12-15,17-22,24, Suzuki teaches an antiferroelectric LCD with a controlling voltage of 100Hz and 30 V (see, figs.8,9; col.3, lines 32-45; col.5, lines 16-65) for an optical length of time, but has failed to a control circuit and a temperature sensor which out puts the controlling voltage waveform. However, the patent of Imoto et al clearly shows that this is well

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known for antiferroelectric LCD to have control circuit (fig.9 "5") and a temperature sensor (fig.9 "20") which outputs the controlling voltage waveform in a frame (see, figure 2. "F1,F2.."); the temperature sensor (fig.9 "20") indicates a temperature change that reduces the layer spacing in the antiferroelectric LCD (see, col.25 lines 1-11, lines 59-67).

Therefore it would have been obvious to one skill in the art at the time of the invention was made to have incorporated the control and the temperature sensing system of Imoto's et al into the device of Suzuki because this will allow the temperature variation in the display are eliminated to stabilize the brightness level and thereby prevent the occurrence of a white darkening phenomenon.

4. *Any inquiry concerning this communication should be directed to Amare Mengistu at telephone number (703) 305-4880.*

Any response to this action should be mailed to:

*Commissioner of Patents and Trademarks
Washington, D.C. 20231*

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

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*(703) 308-6606 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")*

*Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).*

*Any inquiry of a general nature or relating to the status of this application
or proceeding should be directed to the Technology Center 2600 Customer Service
Office whose telephone number is (703)306-0377*

A. Mengistu

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Feb.24,2002


Amare Mengistu
Primary Examiner